

### **REMARKS**

Claims 1-15 are pending. By this amendment, the specification is amended.  
Reconsideration and issuance of a Notice of Allowance is respectfully requested.

On page 2 the Office Action objects to the disclosure. The specification is amended to refer to the patent number of the parent application. Withdrawal of the rejection to the specification is respectfully requested.

On page 2 the Office Action objects to the drawings. In particular, the Office Action objects to the drawings because, allegedly, the steps of receiving first and second virtual address information recited in claim 1 are not shown in the figures.

Claim 1 recites receiving first virtual address information in a first TLB and in parallel with receiving the first virtual address information in the first TLB, receiving the first virtual address information and second virtual address information in a second TLB. Referring to Figure 3, virtual address information 201 is received by cache 200, generating virtual tags 207. Each virtual tag 207 has associated with it, a physical tag 209. See page 6, line 4 – line 28. In Figure 4, physical tags 209 are shown provided to the L0TLB 252 and DTLB 254 through memory port 0-3. The physical tags 209, as noted above, have associated virtual tags 207. Thus, the virtual address information includes the virtual tag 207 to physical tag 209 relationship. Accordingly, Applicant contends that the combination of Figures 3 and 4 show all the features recited in claim 1. Withdrawal of the objection to the drawings is respectfully requested.

On page 3 the Office Action rejects claims 1-15 under the judicially created doctrine of obviousness/type double patenting. Filed herewith is a Terminal Disclaimer in compliance with 37 C.F.R. 1.321(c). Withdrawal of the rejection of claims 1-15 is respectfully requested.

On page 4 the Office Action rejects claim 7 and 12-14 under 35 U.S.C. §102(e) over U.S. Patent 6,272,597 to Fu et al. (hereafter Fu). This rejection is respectfully traversed. The Office Action asserts that Fu teaches a small TLB having a reduced memory port bandwidth and a large TLB having a high memory port bandwidth. Applicant respectfully disagrees.

Figure 1 shows Fu's invention. Big TLB 180 receives virtual address information 150 and 160. At the same time big TLB 180 receives the virtual address information, little TLB0 190 and little TLB1 200 receive corresponding virtual address information. As noted in column 3, lines 22 to 27, the little TLBs 190 and 200, in one embodiment, are dual ported TLBs. However, nothing in Fu discloses or suggests that the little TLBs 109 and 200 individually or in combination, have a memory port bandwidth that is reduced relative to the memory port bandwidth of big TLB 180.

In contrast to Fu, claim 1 recited a small TLB having a reduced memory port bandwidth and a large TLB having a high memory port bandwidth. Similarly, method claim 12 recites providing integer load address information to a first TLB using a first bandwidth and providing the integer load address information and other address information to a second TLB using the second bandwidth larger than the first bandwidth. As noted above, this feature is not disclosed or suggested by Fu. Accordingly, claims 7 and 12 are patentable.

Claims 13 and 14 depend from patentable claim 12, and for this reason and the additional features they recite, claims 13 and 14 are also patentable. Withdrawal of the rejection of claim 7 and 12-14 under 35 U.S.C. §102(e) is respectfully requested.

On page 6 the Office Action rejects claim 8 under 35 U.S.C. §103(a) over Fu in view of EP 0911737 to Maffziger. This rejection is respectfully traversed.

Claim 8 depends from patentable claim 7. For this reason and the additional features it recites, claim 8 is also patentable. Withdrawal of the rejection of claim 8 under 35 U.S.C. §103(a) is respectfully requested.

On page 7 the Office Action rejects claims 11 and 15 under 35 U.S.C. §103(a) over Fu in view of U.S. Patent 6,047,354 to Yoshioka et al. (hereafter Yoshioka). This rejection is respectfully traversed.

Claim 11 depends from patentable claim 7. Claim 15 depends from patentable claim 12. For this reason and the additional features they recite, claims 11 and 15 are also patentable. Withdrawal of the rejection of claims 11 and 15 under 35 U.S.C. §103(a) is respectfully requested.

On page 7 the Office Action rejects claim 10 under 35 U.S.C. §103(a) over Fu in view of U.S. Patent 6,351,797 to Beard et al. This rejection is respectfully traversed.


Claim 10 depends from patentable claim 7. For this reason and the additional features it recites, claim 10 is also patentable. Withdrawal of the rejection of claim 10 under 35 U.S.C. §103(a) is respectfully requested.

In view of the above remarks, Applicant respectfully submits that the application is in condition for allowance. Prompt examination and allowance are respectfully requested.

Should the Examiner believe that anything further is desired in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

Date: **September 28, 2004**

  
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Attachment: Terminal Disclaimer